

REMARKS

The Notice of Allowance dated July 31, 2003 and the Advisory Action dated September 30, 2003, have been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 1-21 are pending in the application. No new matter has been added, and no new issues are raised which require further consideration or search. In view of the following remarks, reconsideration and allowance of these claims are respectfully requested.

Summary of the Office Action

Claims 1-5 and 7-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,949,775 to Rautiola et al. in view of U.K. Patent Application 2315190A of Wynn Quon.

Claims 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,949,775 to Rautiola et al. in view of U.S. patent 5,956,331 to Rautiola et al. (Rautiola #2).

Summary of the Response to the Office Action

Claims 1-21 are presently pending.

The Rejections under 35 U.S.C. §103(a)

The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in independent claims 1 and 20. Independent claim 1 of the present invention discloses a gateway arrangement for receiving traffic comprising a first type of traffic and a second type of traffic. The gateway arrangement includes a first gateway and a second gateway. The first gateway being arranged to separate the first and second types of traffic. The first traffic being output to the second gateway and the second gateway being arranged to extract information from the first type of traffic and output the information to the first gateway. The first gateway having an output interface which is arranged to transmit the second type of traffic dependent upon the extracted information.

Independent claim 20 of the present invention discloses a gateway arranged to receive first and second types of traffic. The gateway includes means for separating the first and second types of traffic. The gateway also includes means for outputting the first type of traffic to a second gateway for processing by the second gateway; and means for receiving a processed first type of traffic from the second gateway, whereby the second type of traffic is transmitted by the means for outputting dependent upon the processed first type of traffic received from the second gateway.

As a result of the claimed invention, a gateway arrangement is provided. One advantage of the present invention is that one signaling gateway may be provided for a number of gateways. Thus, the claimed invention provides significant advantages over

prior systems in solving problems associated with the differences in the requirements for processing signaling and payload traffic. The claimed invention also mitigates the problem associated with the payload traffic since the volume of the payload traffic is generally greater than that of the signaling traffic. These advantages are not all inclusive but merely exemplars of some of the benefits of the invention.

Rautiola et al. teaches an integrated office communication system which employs a LAN for intra-office communications. Col. 5, lines 54-55. Internal computers and phones are connected to the LAN. Col. 6, line 20 – Col. 7, line 8. A gateway computer and a public cellular radio network connect the LAN to the outside world. Col. 5, lines 55-57. The gateway computer acts as a link between the LAN and mobile switching centers of the cellular radio system. Col. 5, lines 55-57. The gateway computer carries out the necessary protocol conversions between the cellular radio system protocol and the protocols applied in the LAN. Col. 8, lines 9-23. The gateway computer also performs other protocol conversions if the LAN is connected to base stations other than those handling information arranged according to the cellular radio system standards. Col. 8, lines 24-27. Additionally, the gateway computer must keep an up-to-date record of operational base units connected to the LAN and is responsible for all mobility, call control and handover functions within the location area under its management. Col. 8, lines 43-63. The office communication system may include a second gateway computer, thereby creating two parallel systems. Col. 9, lines 6-12. According to Rautiola et al., the disadvantage of this configuration is that calls between the two gateways in one office

must be directed by a mobile switching center. Col. 9, lines 12-16. Alternatively, the two gateways can function in a master/slave arrangement, whereby each of them would have a location area of its own but they would belong to the same base substation and intra-office calls from one location area to another are directed via the gateway computers without having to go through the mobile switching center. Col. 9, lines 16-25.

Quon teaches a gateway for permitting calls to be made from an ordinary telephone to an Internet subscriber. Page 1, paragraph 1. The gateway is connected through the public switched telephone network (PSTN) to telephone subscribers. Page 4, paragraph 7. The gateway includes a main processor complex, a switching matrix and a messaging system. Page 5, paragraph 2. The switching matrix interconnects telephone line interface modules (first interface) and TCP/IP interface modules (second interface) and is connected to a pulse code modulator links module. The messaging system is connected to the interface modules over message links. Page 5, paragraph 2. Calls originating on the Internet are routed to the TCP/IP interface (second interface) and the incoming packets are depacketized and routed through the switching matrix to the appropriate outgoing telephone line module (first interface). The packets are then sent over the PSTN as either analog or digital signals. Page 6, paragraph 5. The reverse is true for calls originating from a lined telephone subscriber. Page 6, paragraph 5.

Rautiola #2 describes a telecommunications system which supports all telecommunications for a mobile station regardless of its location and speed and time of day. Col 4, lines 1-6. The telecommunications system includes a general cellular radio

network and a multi-user radio local area network. Col. 4, lines 25-28. The radio local area network has a gateway for establishing a data transfer connection between the radio local area network and the switching center of the general cellular radio network and for carrying out the required protocol conversions between the data transfer protocols used in the radio local area network and the data transfer protocols used in the general cellular radio network. Col. 4, lines 28-34. The invention also describes an embodiment wherein the radio local area network is integrated into the general cellular radio network. Col. 4, lines 35-37.

Rautiola #2 further describes the gateway computer which is used to establish a data transfer connection between the radio local area network and the switching center of the general cellular radio network. Col. 4, lines 47-49, Col. 7, lines 22-25. The gateway computer includes a radio transmitter/receiver, a line transmitter/receiver and means for carrying out the required protocol conversions between the data transfer protocol used in the radio local area network and data transfer protocols used in the general cellular radio network. Col. 4, lines 49-65. Routioli #2 also describes a method for using one or more gateways to transfer data between two terminals. Col. 4, line 66-Col. 5, line 1. If the two communicating terminals are in the same radio local area network, a first gateway which controls the operations of the first radio local area network connects the two terminals. Col. 5, lines 4-18. Depending on the instructions with the connection request, if the terminals are not in the same radio local area network, the first gateway may direct the connection request to the switching center in the general cellular radio system, to

another gateway computer for further transmission to certain network intended for data transfer between computers or to a third gateway for connection with the second terminal. Col. 5, lines 19-42.

According to the Office Action, although Rautiola et al. is silent on the gateway arrangement described in the invention, Rautiola et al. teaches that a gateway can transmit multiple types of data present on a LAN to different devices. Therefore, according to the Office Action, since one gateway internally translates the LAN data format into a wireless data format, it would have been obvious to separate software routines and host them on different gateways to distribute processing load and/or distribute two computers so that they are not co-located. The Office Action also states that since Quon teaches a gateway with multiple interfaces and requires the extraction/reassembly of differing types of data, it would have been obvious at the time of the invention to modify Rautiola et al. such that there are two gateways and that the data is extracted and inserted into the second data stream to provide a multi-gateway system that distributes the processing load and/or alleviates a single point of failure.

Applicants respectfully submit that the combination of Rautiola et al. and Quon fails to disclose the claimed features of the present invention. Claims 1 and 20 teach a first and second type of traffic and a gateway arrangement with multiple gateways that handle the first and second types of traffic in a specific manner. Claim 1 in part teaches that the first gateway is arranged to separate the first and second types of traffic, the first type of traffic being output to the second gateway and the second gateway being arranged

to extract information from the first type of traffic and output the information to the first gateway, and the first gateway having an output interface which is arranged to transmit the second type of traffic dependent upon the extracted information. Claim 20 discloses a gateway arranged to receive first and second types of traffic, the gateway comprising means for separating the first and second types of traffic; means for outputting the first type of traffic to a second gateway for processing by the second gateway; and means for receiving a processed first type of traffic from the second gateway, whereby the second type of traffic is transmitted by the means for outputting dependent upon the processed first type of traffic received from the second gateway.

Applicants respectfully submit that nowhere in Rautiola et al. is there any suggestion of multiple gateways that handle different types of traffic in the specific and inter-related manner as taught in claims 1 and 20. According to the present invention, the first and second gateways perform different functions and transmit information to each in a specific and inter-related manner, such that information is transmitted from the first gateway in dependence upon information received from the second gateway. Therefore, the first and second gateways and their associated functions are not the same and the gateway arrangement and functions of claims 1 and 20 differ significantly from the arrangement in which two or more identical gateways with similar functions have been duplicated for redundancy purposes, such as to eliminate a single point of failure. Moreover, even if Rautiola et al. were modified in the distributed approach suggested by

the Office Action, the result would be multiple gateways all performing similar functions, an approach that is clearly different from the present invention.

Additionally, Quon does not teach, suggest or even discuss the extraction of data using the elements described in claims 1 and 20. Instead, Quon teaches that two modules, both of which are located in the Internet Telephony Gateway, act as conversion entities to convert digitized voice data into analog voice data and vice versa. Quon teaches that the modules operate in succession and information output from the second module is transmitted directly to the PSTN and is not outputted back to the first module. Furthermore, Quon fails to teach the feature wherein the second type of traffic by the first gateway is dependant on information transmitted from the second gateway. Therefore, Quon fails to cure the deficiencies in Rautiola et al. as Quon does not teach, discuss or even suggest that these modules act in the specific inter-related manner disclosed in independent claims 1 and 20.

Rautiola #2 also fails to cure the deficiencies in Rautiola et al. as Rautiola #2 does not even suggest the first and second gateways and the specific inter-related manner in which these gateways handle the first and second traffic as disclosed in independent claims 1 and 20. Instead, Rautiola #2 is primarily directed to a gateway computer which is used to establish a data transfer connection between the radio local area network and the switching center of the general cellular radio network.

The Advisory Action states that the features defined in independent claims 1 and 20 relate merely to design decisions that are disclosed in Quon. Applicants respectfully

submit that the “design decisions” cited in claims 1 and 20 are neither disclosed or even suggested in the art cited by the Office Action. Moreover, merely stating that the inventive elements of claims 1 and 20 are “design decisions” does not take away from the fact that these features are novel and non obvious over the prior art. Accordingly, Applicants respectfully assert that the rejections under 35 U.S.C. 103(a) should be withdrawn because neither Rautiola et al., Quon nor Rautiola #2 whether taken singly or combined, teaches or suggests each feature of independent claims 1 and 20 and therefore, dependent claims 2-19 and 21, respectively.

Furthermore, Applicants respectfully submit that the Office Action has pieced together three references to teach the claimed invention. However, MPEP 2143.01 instructs that “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990).” MPEP 2143.01 further instructs that “[a]lthough a prior art device ‘may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.’” Applicants respectfully submit that the cited references do not provide such a suggestion or motivation. Applicants submit that the only motivation to piece together the three references of the Office Action is found in Applicants’ own application. MPEP 2141, under the heading “Basic Consideration Which Apply to Obviousness Rejections,” points out that “the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention.”

(See also Hodosh v. Block Drug Co., Inc. 786 F.2d 1136, 229 USPQ 182 (Fed. Cir. 1986).) The Federal Circuit has clearly held that “the motivation to combine references cannot come from the invention itself.” Heidelberger Druckmaschinen AG v. Hantscho Commercial Products, Inc., 21 F.3d 1068, 30 USPQ 2d 1377 (Fed. Cir. 1993).

In view of MPEP 2144.03, absent any teaching or suggestion in the prior art to adapt the teachings of Rautiola et al. to meet the claimed invention, and because the rejection lacks evidence of a teaching or suggestion that the features would have been obvious to one of ordinary skill, the rejections under 35 U.S.C. §103(a) are improper. Accordingly, Applicants respectfully submit that the rejections under 35 U.S.C. §103(a) should be withdrawn and Applicants respectfully request allowance of claims 1-21 and the prompt issuance of a Notice of Allowability.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants’ undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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